CONTENTS

Special Issue: Quadrupole Ion Traps

Preface vii

The recent evolution of the quadrupole ion trap mass spectrometer—an overview
J.F.J. Todd and A.D. Penman (Canterbury, U.K.) 1

Novel scan routines for selected ion monitoring using an ion trap mass spectrometer
C.S. Creaser, D.S. Mitchell and K.E. O'Neill (Norwich, U.K.) 21

On the dynamics and energy of ion clouds stored in an r.f. quadrupole trap
F. Vedel (Marseille, France) 33

Simulation study of an ion cage with superimposed multipole fields
J. Franzen (Bremen, F.R.G.) 63

Operation of a quadrupole ion trap mass spectrometer to achieve high mass/charge ratios
R.E. Kaiser, Jr. and R.G. Cooks (West Lafayette, IN, U.S.A.), G.C. Stafford, Jr. and J.E.P. Syka (San Jose, CA, U.S.A.) and P.H. Hemberger (Los Alamos, NM, U.S.A.). 79

Some alternative scanning methods for the ion trap mass spectrometer
J.F.J. Todd and A.D. Penman (Canterbury, U.K.) and R.D. Smith (Hemel Hempstead, U.K.) 117

Comparison of electron ionization and chemical ionization sensitivities in an ion trap mass spectrometer
B.A. Eckenrode, S.A. McLuckey and G.L. Glish (Oak Ridge, TN, U.S.A.) 137

Dissociative photoionization in the vacuum UV region with ion trapping
C.Lifshitz (Jerusalem, Israel). 159

Resonance-enhanced multiphoton ionization spectroscopy in an ion trap detector
D.E. Goeringer, W.B. Whitten and J.M. Ramsey (Oak Ridge, TN, U.S.A.) 175

Temperature-dependent, collision-induced dissociations in an ion-trap mass spectrometer
H.K. Lim, C.O. Sakashita and R.L. Foltz (Salt Lake City, UT, U.S.A.). 191

MS–MS parent scans on a quadrupole ion trap mass spectrometer by simultaneous resonant excitation of multiple ions
J.V. Johnson, R.E. Pedder and R.A. Yost (Gainesville, FL, U.S.A.) 197

Multiple stages of mass spectrometry in a quadrupole ion trap mass spectrometer: prerequisites
S.A. McLuckey, G.L. Glish and G.J. Van Berkel (Oak Ridge, TN, U.S.A.) 213

Measurement of kinetic energies of ions ejected from a quadrupole ion trap
H.-P. Reiser and R.E. Kaiser (West Lafayette, IN, U.S.A.), P.J. Savickas (Midland, MI, U.S.A.) and R.G. Cooks (West Lafayette, IN, U.S.A.) 237

Proton affinity determinations using the kinetic method in an ion trap mass spectrometer
B.D. Nourse and R.G. Cooks (West Lafayette, IN, U.S.A.) 249

The ion trap mass spectrum of sulfur
H.M. Fales, Q.-L. Pu, R.T. Mason and L.K. Pannell (Bethesda, MD, U.S.A.) 273

ITMS capabilities in isomer analysis. Part 3. Characterisation of methyl and dimethyl derivatives of 8-desmethylseseline, potential anti-proliferative agents, by tandem mass spectrometry
B. Kiremire, P. Traldi, A. Guiotto, G. Pastorini, A. Chilin and U. Vettori (Padua, Italy) . . 283

A transportable turnkey gas chromatograph–ion trap detector for field analysis of environmental samples
P.H. Hemberger, J.E. Alarid, D. Cameron, C.P. Leibman, T.M. Cannon and M.A. Wolf (Los Alamos, NM, U.S.A.) and R.E. Kaiser (West Lafayette, IN, U.S.A.) 299

Author Index 315

Subject Index 316